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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Gregory Richard Hintermeister et al. Art Unit: 2173  
Serial No. : 09/659,258 Examiner: Namitha Pillai  
Filed : September 11, 2000  
For : PICTORIAL-BASED USER INTERFACE MANAGEMENT OF  
COMPUTER HARDWARE COMPONENTS

Cincinnati, Ohio 45202

January 15, 2004 **RECEIVED**

Mail Stop Appeal Brief - Patents  
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P.O. Box 1450  
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Technology Center 2100

**TRANSMITTAL OF APPEAL BRIEF (PATENT APPLICATION-37CFR 191)**

1. Transmitted herewith in triplicate is the APPEAL BRIEF in this application with respect to the Notice of Appeal received by the Office on October 16, 2003.

**2. STATUS OF APPLICANT**

This application is on behalf of

XX other than a small entity

       small entity

Verified Statement:

       attached

       already filed

**3. FEE FOR FILING APPEAL BRIEF**

Pursuant to 37 CFR 1.17(f) the fee for filing the Appeal Brief is:

<u>      </u> Small entity	\$165.00
<u>XX</u> Other than a small entity	\$330.00

01/23/2004 TLUU11 00000015 09659258

02 FC:1251

110.00 0P

4. **EXTENSION OF TIME**

Applicant petitions for an extension of time under 37 C.F.R. 1.136(a) for the total number of months checked below:

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<u>XX</u>	one month	\$ ..... 110.00	\$ ..... 55.00
_____	two months	..... 420.00	..... 210.00
_____	three months	..... 950.00	..... 475.00
_____	four months	..... 1,480.00	..... 740.00
_____	five months	..... 2,010.00	..... 1,005.00

**Fee: . \$ 110.00**

If an additional extension of time is required, please consider this a petition therefor.

5. **TOTAL FEE DUE**

The total fee due is:

Appeal Brief Fee \$330.00

Extension Fee \$110.00

6. **FEES PAYMENT**

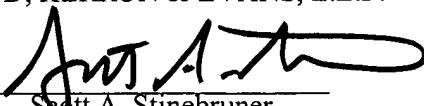
XX Attached are checks in the sums of \$330.00 and \$110.00, respectively.

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7. **FEES DEFICIENCY**

XX Charge any additional extension fee required or credit any overpayment to Deposit Account No. 23-3000. A duplicate of this paper is enclosed.

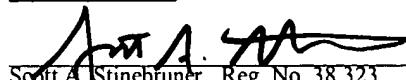
WOOD, HERRON & EVANS, L.L.P.

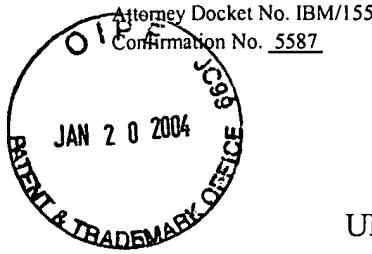
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Scott A. Stinebruner Reg. No. 38,323



PATENT

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

*Ex parte* Gregory Richard Hintermeister, Bradley Jams Lory, David Walter Mead, Chee Peh and  
Steve Royer

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JAN 27 2004

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APPEAL BRIEF

01/23/2004 TLUU11 00000015 09659258

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Gregory Richard Hintermeister et al. Art Unit: 2173  
Serial No.: 09/659,258 Examiner: Namitha Pillai  
Filed: September 11, 2000 Atty. Docket No.: IBM/155  
For: PICTORIAL-BASED USER INTERFACE MANAGEMENT OF COMPUTER  
HARDWARE COMPONENTS

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**APPEAL BRIEF****I. REAL PARTY IN INTEREST**

This application is assigned to International Business Machines Corporation, of Armonk, New York.

**II. RELATED APPEALS AND INTERFERENCES**

There are no related appeals or interferences.

**III. STATUS OF CLAIMS**

Claims 1-43 are pending in the Application, with claim 42 being once amended. All pending claims stand rejected, and are now on appeal.

**IV. STATUS OF AMENDMENTS**

There have been no amendments filed subsequent to final rejection (Paper 6).

**V. SUMMARY OF INVENTION**

Applicants' invention is generally directed to the management of hardware components in a computer system through a graphical user interface. In particular, embodiments of the

invention display a pictorial representation of the physical configuration of a plurality of hardware components in a physical computer system. In addition, to facilitate the management of the hardware components, functionality is supported for displaying a selected status for multiple of such hardware components, which may permit, for example, hardware components sharing common attributes or characteristics to be identified in an efficient and intuitive manner. In addition, such a configuration may permit collective management operations to be performed on all selected hardware components, thus facilitating hardware management tasks where multiple components need to be configured in the same manner, and without requiring that each such component be configured via a separate operation.

Fig. 10 of the application (reproduced below), illustrates an exemplary pictorial representation of a physical computer system as might be generated by an embodiment of the invention. In particular, Fig. 10 illustrates the disk units on a multi-user computer such as an AS/400 midrange computer available from International Business Machines Corporation:

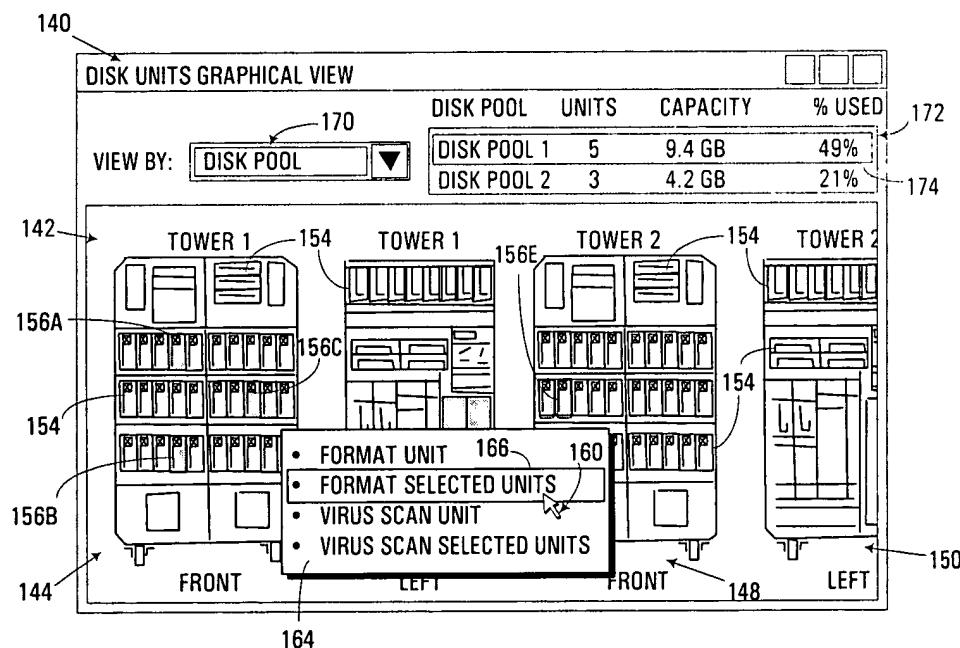


FIG. 10

Fig. 10 illustrates pictorial representations of a pair of towers 1 and 2. It may also be seen that each tower includes a pair of diagrams representing different views of the same tower. For tower 1, diagram 144 represents a front view, while diagram 146 depicts a left side view. Likewise, for tower 2, a diagram 148 displays a front view, while a diagram 150 displays a left side view. A wide variety of hardware components, e.g., disk units, are represented within each diagram at 154 in such a manner that the physical locations of those units within the actual towers are readily ascertainable by technical personnel. (Application, p. 18).

As noted above, one important aspect of the invention is the indication of a selected status of multiple hardware components in a pictorial representation. In the case of the system illustrated in Fig. 10, for example, this indication is provided in the form of highlighting, as represented at 156a-156e. (Id.)

The selection of individual hardware components may be performed in response to user input directed to the pictorial representations of those components, e.g., by pointing a mouse at a pictorial representation and clicking a mouse button. Another manner of selecting hardware components, however, is that of selecting all hardware components meeting a particular filter criterion. For example, a user may wish to input a filter or search criterion, e.g., via a dialog box or other user input control, to perform different types of searches on the available hardware components (e.g., select all disk units that are 80GB in size). Also, in addition to the user input of search or filter criterion, a component manager may define one or more predetermined “views” associated with particular filter criterion, e.g., for viewing different types of objects such as disk drives, network adaptors, work station controllers, etc. (Application, p. 17).

In addition, where multiple diagrams are supported, functionality may be provided to hide any diagrams not associated with any selected hardware components. By doing so, widely different views may be displayed based upon the context of what information a user is attempting to obtain, offering greater flexibility and reducing the complexity of a pictorial representation in a sophisticated computer system. (Application, pp. 16-17).

Another aspect of the invention relates to performing management operations on multiple hardware components collectively. For example, where multiple hardware components are selected in the manner described above, a user may be permitted to collectively initiate

management operations on all of the selected components so that the same operations are initiated for all of such components, even if the components are disposed in different computers. (Application, p. 22).

Furthermore, where multiple hardware components are selected, it may be desirable to generate context-sensitive menus that apply to one or more of the selected hardware components. Fig. 10 above, for example, illustrates a context menu 164 generated as a result of clicking on item 156c with a pointer 160. A variety of available actions may be displayed to a user, e.g., formatting a disk unit, formatting all selected disk units, performing a virus scan operation on the unit or performing a virus scan on all of the selected units, among a wide variety of other component-appropriate actions. (Application, pp. 22-23).

## VI. ISSUES

- A. Whether claims 1-14, 16-18 and 20-43 were improperly rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 5,956,665 to *Martinez et al.* (hereinafter "*Martinez*").
- B. Whether claim 15 was improperly rejected under 35. U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,956,665 to *Martinez et al.* (hereinafter "*Martinez*") and U.S. Patent No. 6,167,358 to *Othmer et al.* (hereinafter "*Othmer*").
- C. Whether claim 19 was improperly rejected under 35. U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,956,665 to *Martinez et al.* (hereinafter "*Martinez*") and *Designing the User Interface*, by Ben Schneiderman, Massachusetts: Addison Wesley Longman, 1998 (hereinafter "*Schneiderman*").

## VII. GROUPING OF CLAIMS

Claims 1-43 do not stand or fall together.

## VIII. ARGUMENT

Applicants respectfully submit that the Examiner's rejections of claims 1-43 are not supported on the record, and that the rejections should be reversed. Reversal of all rejections, and passage of this case onto allowance, are therefore respectfully requested.

### A. Claims 1-14, 16-18 and 20-43 were improperly rejected under 35 U.S.C. § 102(e) as being anticipated by *Martinez*

The Examiner argues that *Martinez* anticipates all of claims 1-14, 16-18 and 20-43. Anticipation of a claim under 35 U.S.C. §102, however, requires that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros., Inc. v. Union Oil Co., 2 USPQ2d 1051, 1053 (Fed. Cir. 1987), *quoted in In re Robertson*, 49 USPQ2d 1949, 1950 (Fed. Cir. 1999). Absent express description, anticipation under inherency requires extrinsic evidence that makes it clear that "the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Continental Can Co. v. Monsanto Co., 20 USPQ2d 1746, 1749 (Fed. Cir. 1991), *quoted in In re Robertson* at 1951. "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient." Continental Can at 1749, *quoted in In re Robertson* at 1951.

Applicants respectfully submit that *Martinez* does not disclose the various features recited in claims 1-14, 16-18 and 20-43, and as such, the rejections thereof should be reversed.

Applicants will hereinafter address the various claims that are the subject of the Examiner's rejection in order.

### Claims 1, 23 and 40

Claim 1 generally recites a method of managing computer hardware components. The method includes displaying a pictorial representation on a computer display, where the pictorial representation is associated with a plurality of hardware components and represents a physical configuration of each of the plurality of hardware components, and indicating a selected status

for multiple hardware components from the plurality of hardware components within the pictorial representation associated with the plurality of hardware components.

The Examiner argues that *Martinez* anticipates claim 1. Applicants respectfully submit, however, that *Martinez* fails to disclose each and every aspect recited in claim 1, and therefore the Examiner's rejection under 35 U.S.C. §102(e) should be reversed.

In particular, *Martinez* fails to disclose, in combination with the other features recited in claim 1:

"indicating a selected status for multiple hardware components from the plurality of hardware components within the pictorial representation associated with the plurality of hardware components" (*emphasis added*).

In rejecting claim 1, the Examiner relies on column 1, lines 30-33, column 2, lines 48-53, and Fig. 6 of *Martinez*. However, none of these passages disclose the display of a selected status of multiple hardware components. Moreover, it is evident from a reading of the remainder of *Martinez* that the selection of only individual, single hardware components is contemplated by the reference. For example, column 3, lines 1 and 66 refer to controlling "one of the components." Moreover, the disclosure starting at column 11, line 30, which details the feature of providing user control of a hardware component, refers to only the selection of a single hardware component.

Given that *Martinez* does not clearly disclose the selection of multiple hardware components, and an indication of the selected status for such components, Applicants respectfully submit that claim 1 is novel over the reference.

In the final Office Action dated July 16, 2003, the Examiner argues in ¶5 that:

"*Martinez* discloses the highlighting of one component, but then goes further to show examples wherein a type of device, within a computing system would be highlighted for a purpose. The type indicating that more than one device would fall under this type category. *Martinez* then discloses that the many cabinets with the devices would be indicated as to which device has the "power supply" discussed by *Martinez*, in his example, wherein multiple components with this "power supply" would have a selected status. See column 12, lines 1-6."

Applicants respectfully submit, however, that the cited example is irrelevant to claim 1, if not supportive of Applicants' position of novelty. First, the cited example is described in the context of a "locate" feature described in more detail starting at column 11, line 43 of *Martinez*, which states "[y]et another feature of the present invention is the ability to locate an individual component within the computing system." (column 11, lines 42-45, *emphasis added*).

Second, it is readily apparent from a reading of the remainder of the passage that this "locate" feature is used to flash a light that is located on the physical component itself. As a result, even if this feature of *Martinez* could be analogized to providing an indication of the selected status of a hardware component, as alleged by the Examiner, the feature would still not read on claim 1, which requires "indicating a selected status . . . within [a] pictorial representation." Put another way, claim 1 indicates a selected status for a hardware component on the pictorial representation of a hardware component, while the "locate" feature of *Martinez* at most arguably indicates a selected status on the actual hardware component itself.

*Martinez* does note, at column 9, lines 30-31, that fields 94 of Fig. 6 emulate status lights 29. However, this disclosure, in combination with the "locate" feature described elsewhere in *Martinez* still falls short of anticipating claim 1.

In particular, the cited passage at column 12, lines 1-6, when combined with the immediately preceding disclosure found at column 11, lines 58-67, discloses only that the components for which lights may be flashed are individual disk units, and not container-type devices such as slots, shelves or cabinets. Indeed, the depiction of a shelf in Fig. 6 illustrates only the eight disk drives in the shelf (see column 9, lines 24-26).

What the passage at column 11, lines 58-67 instead discloses is that it is the display of cabinet ID number, cabinet type, shelf number and slot number on the GUI (which are all alphanumeric display information, and are notably not based on a pictorial representation) that enables an administrator to locate a component with a flashing light. Put another way, an administrator is required to look at alphanumeric information to locate individual shelves and cabinets where a component is located.

Taken in this context, the disclosure relied upon by the Examiner at column 12, lines 1-6 indicates only that the locate function could be used to display alphanumeric information

regarding cabinet and shelf number of each power supply to assist an administrator in locating the power supplies.

Also of note, this disclosure does not specifically assert that lights on individual power supplies are flashed as a result of the locate function, or even that power supplies have such lights. Moreover, the disclosure does not even assert that location information (even if alphanumeric in nature) for multiple power supplies of a given type is presented in the GUI at the same time.

Applicants respectfully submit that the cited passage in *Martinez*, when taken in context with the other disclosure in the reference, discloses at the most that a location function may be used to indicate the locations of power supplies of a given type by displaying alphanumeric information for individual power supplies one at a time. As a result, Applicants submit that *Martinez* falls short of anticipating claim 1, and that the Examiner's rejection should be reversed.

Moreover, Applicants respectfully submit that claim 1 is also non-obvious over the reference, as there is no suggestion in the reference to modify the disclosed configuration to support the selection of multiple components and the subsequent indication of a selected status for those components on pictorial representation thereof. A *prima facie* showing of obviousness requires that the Examiner establish that the differences between a claimed invention and the prior art "are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. §103(a). Such a showing requires that all claimed features be disclosed or suggested by the prior art. Such a showing also requires objective evidence of the suggestion, teaching or motivation to combine or modify prior art references, as "[c]ombining prior art references without evidence of such a suggestion, teaching or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability -- the essence of hindsight." In re Dembicza, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999).

For example, Fig. 9 of *Martinez* et al., and the accompanying disclosure at column 12, lines 7-50, again refers only to the initiation of a logical operation on a single component. There is no suggestion in the reference of applying logical operations to multiple components, and as a result, there would be no suggestion to display a selected status for multiple such components.

Moreover, as noted above regarding the cited passage at column 12, lines 1-6, there is likewise no suggestion of indicating a selected status of multiple components on pictorial representations of such components. Indeed, the leaps of logic required to read this passage on claim 1 reek of hindsight, as one of ordinary skill in the art, not having the benefit of Applicants' disclosure, would not interpret *Martinez* in the manner suggested by the Examiner.

Applicants also respectfully submit that it is more than a routine modification to support the control of multiple components. *Martinez*, for example, utilizes an event-driven interface whereby logical operations are passed to hardware components via events. The issuance of multiple such events to multiple components in response to user input would be more than a minor modification to the *Martinez* et al. system.

Applicants therefore respectfully submit that a modification of *Martinez* to support the display of a selected status for multiple hardware components on pictorial representations of such components would require the use of hindsight, and thus would not be sufficient for establishing a *prima facie* case of obviousness. Claim 1 is therefore also non-obvious over *Martinez*. An indication of the allowability of claim 1 is therefore respectfully requested.

In addition, with respect to independent claims 23 and 40, which respectively recite an apparatus and a program product, each of these claims likewise recite the concept of indicating the selected status for multiple hardware components within a pictorial representation. Accordingly, Applicants respectfully submit that claims 23 and 40 are novel and non-obvious over *Martinez* and the other prior art of record for the same reasons as claim 1. Reversal of the Examiner's rejections, and allowance of claims 23 and 40, are therefore respectfully requested.

#### Claims 2 and 24

Claims 2 and 24 are not separately argued.

#### Claims 3 and 25

Claims 3 and 25 additionally recite the concept of providing two diagrams depicting different views of an enclosure that houses hardware components, taken from first and second viewpoints, which may be useful, for example, for enclosures that may have components that are

only visible from different viewpoints. In rejecting these claims, the Examiner relies on column 9, lines 24-30 of *Martinez*. However, this passage does not appear to disclose anything even arguably relevant to this claimed concept, rather it discloses only the concept of illustrating the locations of disk units in a shelf (which, of note, is shown only from one viewpoint in Fig. 6). In addition, Applicants can find no other disclosure or suggestion in the reference showing multiple diagrams of the same enclosure. Accordingly, Applicants respectfully submit that the Examiner has failed to establish anticipation of claims 3 and 25 by *Martinez*. Reversal of the Examiner's rejections, and allowance of these claims, are therefore respectfully requested.

Claims 4 and 26

Claims 4 and 26 are not separately argued.

Claims 5 and 27

Claims 5 and 27 each additionally recite selecting hardware components that are associated with attributes that match a filter criterion applied to the plurality of hardware components. As such, these claims permit multiple hardware components to be selected based upon common attributes that meet a particular filter criterion.

In rejecting these claims, the Examiner relies on *Martinez*, column 2, lines 59-65. However, Applicants can find no relevance to this passage in terms of the selection of multiple hardware components, much less in response to the application of a filter criterion. Instead, the cited passage merely discloses the concept that components can have attributes, and that a computer display can be updated in response to the modification of a shelf's configuration.

At nowhere in the cited passage, or anywhere else in *Martinez*, is it ever disclosed or suggested that multiple hardware components may be selected based upon a filter criterion. Accordingly, Applicants respectfully submit that the Examiner has failed to establish anticipation of claims 5 and 27 by *Martinez*. Reversal of the Examiner's rejections, and allowance of the claims, are therefore respectfully requested.

Claims 6 and 28

Claims 6 and 28 additionally recite the concept of generating a filter criterion responsive to user input. In rejecting these claims, the Examiner relies on column 2, lines 66-67 and column 3, lines 1-2 for allegedly disclosing this feature. All this passage recites, however, is the concept of user input in the abstract. There is no disclosure or suggestion in the reference of generating a filter criterion specifically in response to user input. Accordingly, *Martinez* fails to anticipate claims 6 and 28. Reversal of the Examiner's rejections, and allowance of these claims, are therefore respectfully requested.

Claims 7 and 29

Claims 7 and 29 additionally recite the concept of selecting a filter criterion from a plurality of predetermined filter criteria with each filter criterion associated with a predetermined view among a plurality of views. As described, for example, at page 17 of the Application, by providing multiple filter criteria, different views may be defined to view different types of components, e.g., disk drives, network adapters, work station controllers, etc.

In rejecting these claims, the Examiner relies on column 3, lines 2-7 of *Martinez*. However, the cited passage discloses only various control operations that can be performed on a component, such as changing an operating setpoint or flashing an indicator light. Precisely how the Examiner considers this disclosure to correspond to the provision of multiple filter criteria associated with different views is unclear. Nonetheless, it is Applicants' contention that the Examiner has failed to establish anticipation of claims 7 and 29 by *Martinez*. The reference is entirely silent as to this particular claimed concept. Reversal of the Examiner's rejections, and allowance of these claims, are therefore respectfully requested.

Claims 8-9

Claims 8-9 are not separately argued.

### Claims 10 and 30

Claims 10 and 30 additionally recite that each hardware component is associated with at least one of a plurality of diagrams, each of which depicting a physical location of at least one hardware component. Furthermore, the claims recite the display within the pictorial representation of only those diagrams that depict the physical location of a hardware component having a selected status. Put another way, claims 10 and 30 recite limiting the display of diagrams in a pictorial representation to those having selected hardware components thereon.

In rejecting these claims, the Examiner relies on Fig. 6 and column 9, lines 21-26 of *Martinez*. The cited passage and figure, however, explicitly discuss a single diagram (that of a single shelf). Applicants can find no disclosure in *Martinez* of the concurrent display of multiple diagrams, much less limiting the display to only those that depict the physical location of hardware components having a selected status. Absent any such disclosure, the Examiner's rejection cannot be sustained. Reversal of the Examiner's rejections, and allowance of these claims, are therefore respectfully requested.

### Claims 11-12 and 31-32

Claims 11-12 and 31-32 are not separately argued.

### Claims 13 and 33

Claims 13 and 33 additionally recite the concept of performing a management operation on each of the multiple hardware components that have the selected status responsive to user input. As such, in the invention recited in these claims, a user is able to perform a given operation on multiple hardware components in a collective manner, as opposed to having to separately perform such an operation individually on each component.

The Examiner relies on column 3, lines 2-4 of *Martinez* in rejecting these claims. The cited passage, however, merely discloses the operation of changing an operating setpoint of a component. There is no disclosure in this passage of performing this operation, or any other management operation for that matter, on multiple hardware components. Indeed, even the passage at columns 11 and 12 that the Examiner relies upon for allegedly disclosing selection of

multiple hardware components never discloses the collective performance of management operations on any of those components.

One significant benefit of the claimed feature is the ability to select multiple hardware components and then perform collective management operations on those components, which provides administrators with significantly greater flexibility for managing hardware components, and can significantly reduce the amount of effort required compared to performing these operations separately for individual components. For example, as shown in Fig. 10 of the Application, an administrator might be permitted to select multiple disk drives from a pictorial representation and then, through a common operation, format all of those units in a single operation.

Applicants respectfully submit that this claimed feature is not disclosed or suggested by *Martinez*, and the Examiner's rejection cannot be sustained. Reversal of the Examiner's rejections, and allowance of these claims, are therefore respectfully requested.

Claims 14 and 34

Claims 14 and 34 additionally recite the performance of a management operation on multiple hardware components physically located in different computers. In rejecting these claims, the Examiner relies on column 12, lines 51-53 of *Martinez*, which merely discloses that components may be disposed in multiple computer rooms. This disclosure, however, fails to disclose the performance of a management operation on components in different computers, as is required by these claims. Accordingly, Applicants respectfully submit that the Examiner has failed to establish a case of anticipation as to these claims. Reversal of the Examiner's rejections, and allowance of these claims, are therefore respectfully requested.

Claims 16-18, 20-22, 35-39 and 41

Claims 16-18, 20-22, 35-39 and 41 are not separately argued.

Claim 42

Claim 42 recites a method of managing computer hardware components, and includes, *inter alia*, the dynamic generation of a pictorial representation of a plurality of hardware components resident in a plurality of computers. The claim additionally recites performing at least one management operation on multiple selected hardware components in response to user input directed to that portion of the pictorial representation that represents the physical configuration of one of the multiple selected hardware components.

As discussed above in connection with claims 13 and 33, *Martinez* does not disclose or suggest the performance of a management operation on multiple selected hardware components. Furthermore, Applicants respectfully note that *Martinez* also fails to disclose or suggest the performance of such a management operation "in response to user input directed to that portion of [a] pictorial representation that represents the physical configuration of one of the multiple selected hardware components." As shown, for example, in Fig. 10, which is reproduced above, a typical management operation that may be performed in response to user input directed to a particular hardware component among multiple selected hardware components, is illustrated by the "FORMAT SELECTED UNITS" entry 166 displayed in a context menu 164 in response to clicking on one of multiple selected hardware components.

In rejecting claim 42, the Examiner argues that column 12, lines 1-6 of *Martinez* discloses performing a management operation on multiple selected hardware components in response to user input. However, as discussed above in connection with claim 1, this passage does not even disclose the selection of multiple hardware components.

Furthermore, the power supply replacement operation that is described in the passage is quite clearly a manual-type operation that would not be performed through the GUI, given the need to physically remove each power supply and install a new power supply in its place. Claim 42 recites the performance of a management operation in response to user input directed to a pictorial representation on a computer display, and there is nothing in *Martinez* that even suggests that a power supply replacement operation could be initiated for multiple power supplies through a GUI.

Accordingly, in addition to the reasons presented above in connection with claim 1 regarding the novelty and non-obviousness of the concept of selecting multiple hardware components represented in a pictorial representation, claim 42 is additionally distinguished from *Martinez* by virtue of the performance of a management operation on multiple selected hardware components in response to user input directed to the pictorial representation. Applicants respectfully submit that the Examiner has failed to establish anticipation of claim 42 by *Martinez*. Accordingly, reversal of the Examiner's rejection, and allowance of claim 42, are respectfully requested.

*Claim 43*

Claim 43 depends from claim 42, and additionally recites the selection of hardware components based upon a filter criterion, coupled with the dynamic generation of a pictorial representation that includes only those diagrams among a plurality of diagrams associated with selected hardware components.

As described above in connections with claims 10 and 30, *Martinez* does not disclose or suggest this combination of features. The Examiner's citation of column 2 and Fig. 1 of *Martinez* in rejecting claim 43 fails to establish a clear disclosure of these claimed concepts in *Martinez*. Notably, Fig. 1 is a block diagram of physical hardware components, and not of a "pictorial representation" of any of the components (the only pictorial representation of any hardware component in *Martinez* is found in Fig. 6). In addition, the cited passages in column 2 do not disclose the concept of selecting hardware components, or applying a filter criterion. Moreover, the cited passages fail to disclose generating a pictorial representation that only includes diagrams that illustrate selected hardware components.

Applicants respectfully submit that the Examiner has fallen far short of establishing anticipation of claim 43 by *Martinez*. Reversal of the Examiner's rejection, and allowance of the claim, are therefore respectfully requested.

**B. Claim 15 was improperly rejected under 35. U.S.C. § 103(a) as being unpatentable over Martinez and Othmer**

Claim 15 ultimately depends from claim 1, which as noted above, is not disclosed or suggested by *Martinez*. In addition, *Othmer* is cited merely for disclosing different types of computer platforms. As *Othmer* does not disclose or suggest any of the features recited in the underlying claim 1, Applicants respectfully submit that claim 15 is non-obvious over the combination of *Martinez* and *Othmer*. Reversal of the Examiner's rejection of claim 15, and allowance of the claim, are therefore respectfully requested.

**C. Claim 19 was improperly rejected under 35. U.S.C. § 103(a) as being unpatentable over Martinez and Schneiderman**

Claim 19 ultimately depends from claim 1, which as noted above, is not disclosed or suggested by *Martinez*. In addition, *Schneiderman* is cited merely for disclosing pop-up windows for displaying status information. As *Schneiderman* does not disclose or suggest any of the features recited in the underlying claim 1, Applicants respectfully submit that claim 19 is non-obvious over the combination of *Martinez* and *Schneiderman*. Reversal of the Examiner's rejection of claim 19, and allowance of the claim, are therefore respectfully requested.

**IX. CONCLUSION**

In conclusion, Applicants respectfully request that the Board reverse the Examiner's rejections of claims 1-43, and that the Application be passed to issue. If there are any questions

regarding the foregoing, please contact the undersigned at 513/241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

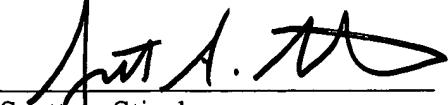
Respectfully submitted,

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Date: 15 JAN 2004

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**APPENDIX A: CLAIMS ON APPEAL (S/N 09/659,258)**

1. (Original) A method of managing computer hardware components, the method comprising:
  - (a) displaying a pictorial representation on a computer display, the pictorial representation associated with a plurality of hardware components and representing a physical configuration of each of the plurality of hardware components; and
  - (b) indicating a selected status for multiple hardware components from the plurality of hardware components within the pictorial representation associated with the plurality of hardware components.
2. (Original) The method of claim 1, wherein the pictorial representation includes a diagram of at least one enclosure within which the plurality of hardware components is disposed, the diagram further depicting a physical location of each of the plurality of hardware components in the enclosure.
3. (Original) The method of claim 2, wherein the first diagram depicts a first view of the enclosure taken from a first viewpoint, and wherein the pictorial representation further includes a second diagram depicting a second view of the enclosure taken from a second viewpoint.
4. (Original) The method of claim 2, wherein at least one of the plurality of hardware components comprises an unused interface component configured to physically interconnect with another hardware component, the method further comprising managing the unused interface component through user input directed to the pictorial representation.
5. (Original) The method of claim 1, wherein each of the plurality of hardware components is associated with at least one attribute, the method further comprising:
  - (a) comparing attributes associated with the plurality of hardware components against a filter criterion; and

(b) selecting those hardware components associated with attributes that match the filter criterion.

6. (Original) The method of claim 5, further comprising generating the filter criterion responsive to user input.

7. (Original) The method of claim 5, further comprising selecting the filter criterion from a plurality of predetermined filter criteria, each of the plurality of predetermined filter criteria associated with a predetermined view among a plurality of views.

8. (Original) The method of claim 5, wherein each hardware component is associated with a hardware type, and wherein the filter criterion identifies a selected hardware type, wherein selecting those hardware components includes selecting those hardware components associated with the selected hardware type.

9. (Original) The method of claim 5, further comprising updating the indication of the selected status for at least one of the multiple hardware components responsive to selection of those hardware components associated with attributes that match the filter criterion.

10. (Original) The method of claim 5, wherein each of the plurality of hardware components is associated with at least one of a plurality of diagrams, each of which depicting a physical location of at least one of the plurality of hardware components, the method further comprising displaying within the pictorial representation only those diagrams from the plurality of diagrams that depict the physical location of at least one hardware component having a selected status.

11. (Original) The method of claim 1, further comprising visually highlighting those portions of the pictorial representation that depict the physical configurations of the multiple hardware components that have a selected status.

12. (Original) The method of claim 1, further comprising updating the status of a first hardware component among the plurality of hardware components to one of a selected and an unselected status responsive to user input directed to that portion of the pictorial representation that depicts the physical configuration of the first hardware component.

13. (Original) The method of claim 1, further comprising performing a management operation on each of the multiple hardware components that have a selected status responsive to user input.

14. (Original) The method of claim 13, wherein the multiple hardware components are physically located in a plurality of computers, wherein performing the management operation includes performing the management operation in each of the plurality of computers.

15. (Original) The method of claim 14, wherein at least two of the plurality of computers utilize different types of computer platforms.

16. (Original) The method of claim 1, further comprising retrieving a list of available management operations associated with a first hardware component among the plurality of hardware components in response to user input directed to that portion of the pictorial representation that depicts the physical configuration of the first hardware component.

17. (Original) The method of claim 16, wherein the user input includes user input to open a context sensitive menu, the method further comprising:

- (a) displaying the list of available management operations within a context sensitive menu; and
- (b) initiating one of the available management operations on the first hardware component responsive to user input directed to the context sensitive menu.

18. (Original) The method of claim 1, further comprising retrieving status information associated with a first hardware component among the plurality of hardware components in

response to user input directed to that portion of the pictorial representation that depicts the physical configuration of the first hardware component.

19. (Original) The method of claim 18, wherein the user input includes locating a user-manipulated pointer over that portion of the pictorial representation that depicts the physical configuration of the first hardware component, the method further comprising displaying the retrieved status information within a pop-up window disposed proximate that portion of the pictorial representation that depicts the physical configuration of the first hardware component.

20. (Original) The method of claim 1, wherein displaying the pictorial representation and indicating the selected status are performed on a first computer, and wherein each of the plurality of hardware components is physically located in the first computer.

21. (Original) The method of claim 1, wherein displaying the pictorial representation and indicating the selected status are performed on a first computer, and wherein at least a portion of the plurality of hardware components are physically located in a second computer in communication with the first computer.

22. (Original) The method of claim 1, wherein each of the plurality of hardware components is disposed in a computer selected from the group consisting of a single-user computer, a multi-user computer, a clustered computer, a multi-unit computer, and combinations thereof.

23. (Original) An apparatus, comprising:

- (a) a memory; and
- (b) a program resident in the memory and configured to display a pictorial representation on a computer display, the pictorial representation associated with a plurality of hardware components and representing a physical configuration of each of the plurality of hardware components, the program further configured to indicate a selected

status for multiple hardware components from the plurality of hardware components within the pictorial representation associated with the plurality of hardware components.

24. (Original) The apparatus of claim 23, wherein the pictorial representation includes a diagram of at least one enclosure within which the plurality of hardware components is disposed, the diagram further depicting a physical location of each of the plurality of hardware components in the enclosure.

25. (Original) The apparatus of claim 24, wherein the first diagram depicts a first view of the enclosure taken from a first viewpoint, and wherein the pictorial representation further includes a second diagram depicting a second view of the enclosure taken from a second viewpoint.

26. (Original) The apparatus of claim 24, wherein at least one of the plurality of hardware components comprises an unused interface component configured to physically interconnect with another hardware component, wherein the program is further configured to manage the unused interface component through user input directed to the pictorial representation.

27. (Original) The apparatus of claim 23, wherein each of the plurality of hardware components is associated with at least one attribute, and wherein the program is further configured to compare attributes associated with the plurality of hardware components against a filter criterion, and select those hardware components associated with attributes that match the filter criterion.

28. (Original) The apparatus of claim 27, wherein the program is further configured to generate the filter criterion responsive to user input.

29. (Original) The apparatus of claim 27, wherein the program is further configured to select the filter criterion from a plurality of predetermined filter criteria, each of the plurality of predetermined filter criteria associated with a predetermined view among a plurality of views.

30. (Original) The apparatus of claim 27, wherein each of the plurality of hardware components is associated with at least one of a plurality of diagrams, each of which depicting a physical location of at least one of the plurality of hardware components, wherein the program is further configured to display within the pictorial representation only those diagrams from the plurality of diagrams that depict the physical location of at least one hardware component having a selected status.

31. (Original) The apparatus of claim 23, wherein the program is further configured to visually highlight those portions of the pictorial representation that depict the physical configurations of the multiple hardware components that have a selected status.

32. (Original) The apparatus of claim 23, wherein the program is further configured to update the status of a first hardware component among the plurality of hardware components to one of a selected and an unselected status responsive to user input directed to that portion of the pictorial representation that depicts the physical configuration of the first hardware component.

33. (Original) The apparatus of claim 23, wherein the program is further configured to perform a management operation on each of the multiple hardware components that have a selected status responsive to user input.

34. (Original) The apparatus of claim 33, wherein the multiple hardware components are physically located in a plurality of computers, wherein the program is further configured to perform the management operation by performing the management operation in each of the plurality of computers.

35. (Original) The apparatus of claim 23, wherein the program is further configured to retrieve a list of available management operations associated with a first hardware component among the plurality of hardware components in response to user input directed to that portion of the pictorial representation that depicts the physical configuration of the first hardware component.

36. (Original) The apparatus of claim 35, wherein the user input includes user input to open a context sensitive menu, wherein the program is further configured to display the list of available management operations within a context sensitive menu, and initiate one of the available management operations on the first hardware component responsive to user input directed to the context sensitive menu.

37. (Original) The apparatus of claim 23, wherein the program is further configured to retrieve status information associated with a first hardware component among the plurality of hardware components in response to user input directed to that portion of the pictorial representation that depicts the physical configuration of the first hardware component.

38. (Original) The apparatus of claim 23, wherein the program is resident on the same computer as the plurality of hardware components.

39. (Original) The apparatus of claim 23, wherein at least one of the plurality of hardware components is physically located on a different computer from that within which the program is resident.

40. (Original) A program product, comprising:

(a) a program configured to display a pictorial representation on a computer display, the pictorial representation associated with a plurality of hardware components and representing a physical configuration of each of the plurality of hardware components, the program further configured to indicate a selected status for multiple

hardware components from the plurality of hardware components within the pictorial representation associated with the plurality of hardware components; and

- (b) a signal bearing medium bearing the program.

41. (Original) The program product of claim 40, wherein the signal bearing medium includes at least one of a recordable medium and a transmission medium.

42. (Once Amended) A method of managing computer hardware components, the method comprising:

- (a) accessing a plurality of computers to identify a plurality of hardware components resident in the plurality of computers;
- (b) dynamically generating a pictorial representation on a computer display, the pictorial representation associated with the plurality of computers and representing a physical configuration of each of the plurality of hardware components within the plurality of computers; and
- (c) performing at least one management operation on multiple selected hardware components among the plurality of hardware components in response to user input directed to that portion of the pictorial representation that represents the physical configuration of one of the multiple selected hardware components.

43. (Original) The method of claim 42, wherein each of the plurality of hardware components is associated with at least one attribute, and wherein each of the plurality of hardware components is associated with at least one of a plurality of diagrams, the method further comprising:

- (a) comparing attributes associated with the plurality of hardware components against a filter criterion; and
- (b) selecting those hardware components associated with attributes that match the filter criterion;

wherein dynamically generating the pictorial representation includes displaying within the pictorial representation only those diagrams associated with the selected hardware components.